



Mines pounds Fort Lewis, 51-10



STEVEN WOOLDRIDGE / OREDIGGER

The Orediggers improved to 2-2 overall after Saturday's game, which was the RMAC game of the week. They ran for 179 yards and passed for 461 yards for a total of 640 yards, approaching the 686-yard all-time record. See more photos on page 7.

Online
this week

Excerpt from *6 Days to Better Grades*, by Dr. Jason A. Davies

Slideshow of Saturday's game

International Conversation Group inspires

Geology Museum Slideshow

ASCSM meeting covers beginning-of-year business, bylaws, and budget committee

Tim Weillert
Content Manager

Last Thursday's meeting of the Associated Students of the Colorado School of Mines went smoothly and featured a variety of updates from the members of the governing student organization.

Vice President Ashley Young presented updates on her various committees, which included parking services. According to Young, parking services is now a part of facilities management, and may possibly be updating the parking map and adding more bike racks and cross-walks. She also commented that if students have any ideas about seeding or landscaping, such ideas might be considered for implementation.

Damian Illing had a rather lengthy report relating to his duties as student rep to the Board of Trustees. Highlights included a possible collaborative project with the University of Denver. Although not much is known about it at this time, Illing said there may be the possibility of "students seeking an undergraduate education at

Mines, then doing masters and PhD work at DU, and DU students coming to Mines for post-grad work."

Furthermore, Illing presented the new numbers for student placement from the graduating class of 2009: 80% for BS, 92% for graduate, and 95% for PhD's. The flu epidemic was the next topic of conversation. "CSM is in good shape," said Illing, "However, self-reporting is still very important." The faculty is actively working with students who self-report via the website inside. mines.edu/flu to help sick students keep up with assignments.

For the last part of his report, Illing updated the student body on the various building projects taking place around campus. As it stands right now, the dirt plot that once held the Hall of Justice may become a grass field, although Illing and others are proposing that the area be converted into a temporary gravel parking lot, more should be known by the next ASCSM meeting.

The Brown Building extension will break ground early next year and is expected to open summer

2011. Marquez Hall has continued to receive funding and will hopefully break ground next spring. A new housing facility will add 291 beds to the on-campus housing programs and a parking garage may go up behind the ROTC building on Maple. The timelines for the last two items were not known at the time of printing.

Rambert Nahm, representative to the Faculty Senate, presented

his report, outlining several new proposals. The Faculty Senate is currently considering several proposals, which include joining a national conservation/greening initiative, revising the core required curriculum, altering the class auditing system and F forgiveness policy. Dr. Wendy Harrison, the Associate Provost, will be at the next ASCSM meeting (October 1) to present on these proposals and to answer any

questions.

Before hearing from each class and closing the meeting, Sharif Jawad covered some Golden community news. According to Jawad, the flyover at 6th and Colfax is expected to be completed by the end of the year, and the intersection of SH-6 and 19th St. might get a renovation. Finally, Parent's Weekend is October 23-25, and registration for that event is going on now.



TIM WEILLERT / OREDIGGER

ASCSM President Jaime Thorpe explains the proposal for the Brown Building addition.

Scientific discoveries this week

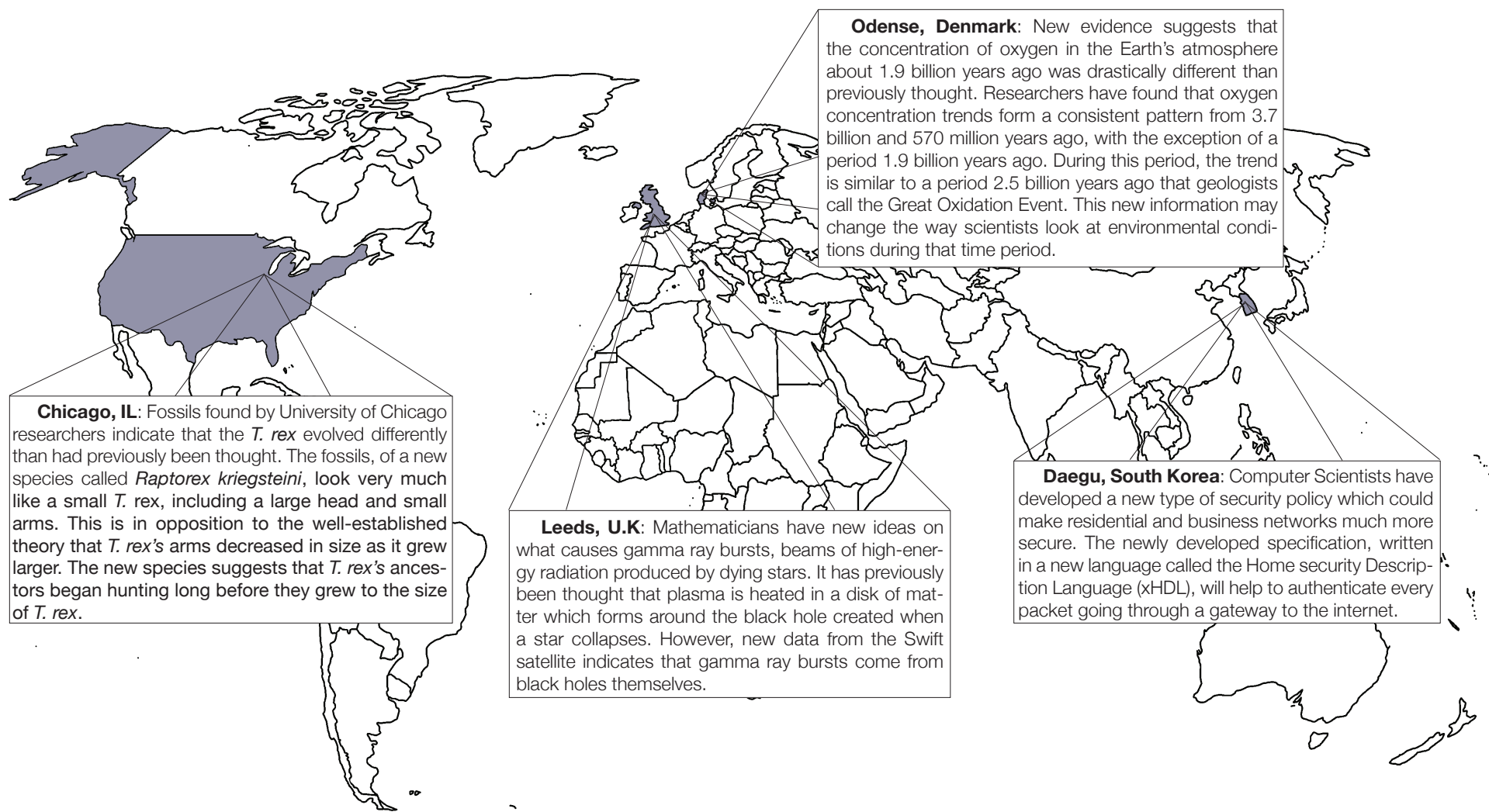
Jake Rezac, Content Manager

Chicago, IL: Fossils found by University of Chicago researchers indicate that the *T. rex* evolved differently than had previously been thought. The fossils, of a new species called *Raptorex kriegsteini*, look very much like a small *T. rex*, including a large head and small arms. This is in opposition to the well-established theory that *T. rex*'s arms decreased in size as it grew larger. The new species suggests that *T. rex*'s ancestors began hunting long before they grew to the size of *T. rex*.

Odense, Denmark: New evidence suggests that the concentration of oxygen in the Earth's atmosphere about 1.9 billion years ago was drastically different than previously thought. Researchers have found that oxygen concentration trends form a consistent pattern from 3.7 billion and 570 million years ago, with the exception of a period 1.9 billion years ago. During this period, the trend is similar to a period 2.5 billion years ago that geologists call the Great Oxidation Event. This new information may change the way scientists look at environmental conditions during that time period.

Leeds, U.K: Mathematicians have new ideas on what causes gamma ray bursts, beams of high-energy radiation produced by dying stars. It has previously been thought that plasma is heated in a disk of matter which forms around the black hole created when a star collapses. However, new data from the Swift satellite indicates that gamma ray bursts come from black holes themselves.

Daegu, South Korea: Computer Scientists have developed a new type of security policy which could make residential and business networks much more secure. The newly developed specification, written in a new language called the Home security Description Language (xHDL), will help to authenticate every packet going through a gateway to the internet.



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Headlines from around the world

Emily Trudell, Staff Writer

The **approval ratings** for President Obama are around 55%, a CNN poll concluded this week. Roughly 39% of Americans disapprove of Obama's actions as President.

Roughly 3.4 million doses of an inhalable **vaccine for the H1N1 flu** virus are expected to be available the first week of October. This inhalable vaccine is for patients aged between 2 and 49, but is not considered safe for pregnant women, because it contains a virus.

At least 400 **cattle raiders** attacked a village in Kenya, killing at least 18 people including women and children. Fifteen others were seriously injured and airlifted to the nearest hospital. It is also estimated that roughly 30 cattle were killed.

Israeli President **Shimon Peres**, age 86, was discharged from a hospital Sunday, after he fainted after giving a speech in Tel Aviv.

Seventeen soldiers and four civilians were killed in a suicide attack on an **African Union** base. The bombers were disguised as United Nations officials, and detonated the explosives inside the mission's headquarters.

Russia loaned **Venezuela** \$2.2 billion towards weapons purchases, including tanks and short range missiles. United States Secretary of State Hilary Clinton expressed concern that this action could trigger an arms race between South American nations such

as Venezuela and Colombia.

Another bone was found on the property of Philip and Nancy Garrido, who face 29 felony charges in connection with the abducting of **Jaycee Lee Dugard** in 1991. Police are using ground penetrating radar, cadaver dogs, and archeological dogs to search the Garrido's property.

Raymond J. Clark III was arrested in connection with the disappearance and death of Yale student Annie Le after a DNA test linked Clark to the case. Clark has been charged with the murder of Le, and his bail was set at \$3 million.

Two children and an adult male were killed when a **mudslide** in Magdalena Contreras, a town near Mexico City, destroyed several houses that had been built on a hill

in the area. Heavy rain in the area over the last few weeks has left roughly 2000 homes damaged.

Astronomers claim to have discovered that the coldest spot in the solar system, -238 degrees Celsius, is on the south pole of the moon, after NASA's new **Lunar Renaissance Orbiter** completed its first temperature map of the moon.

An earthquake of magnitude 6.4 hit the Indonesian island of **Bali**. Seven people were hospitalized with injuries in the quake, but officials say that there is no threat of tsunami.

Prince Harry of Great Britain celebrated his twenty-fifth birthday, and is now entitled to a portion of the \$35 million that his late mother, the Princess Diana, left to him after her death.



Local News

The American Association of Petroleum Geologists has announced the following awards to members of the Mines community:

David R. Pyles-Wallace E. Pratt Memorial Award, J. C. "Cam" Sproule Memorial Award, Nicholas Harris-Jules Braunstein Memorial Award

The American Society for Microbiology (ASM) has selected Mines' Merika Treants as a 2009 award recipient of the ASM Microbiology Undergraduate Research Fellowship. Treants conducted research at Indiana University School of Medicine this past summer.

John Moore has been elected to the Russian Academy of Natural Science as a foreign member.

Pieter Rowlette, a Ph.D. candidate in the Department of Chemical Engineering, was selected as the winner of the American Vacuum Society's 2009 Thin Film Division Graduate Student Award.

Mike Batzle has been chosen as the Society of Exploration Geophysicists Honorary Lecturer to the North America Region in 2010. Batzle was chosen for this special honor because, quoting from the SEG procedures, he is "an outstanding communicator of ideas and an individual noted for quality in his contributions to geophysics."



Copper has a history in Zambia

Alec Westerman
Staff Writer

Copper is what draws the mining industry and Murray Hitzman, the guest speaker, to Zambia and the Congo. It is most abundant in the Lufilian Arc, a strip of land that is ranked the best copper source in the world, leading the second best source in Germany. Hitzman acknowledged, "There is evidence of smelting in the area going back to the seventh century AD." He, therefore, credited Jules Cornet, George

The research Hitzman and his team conducted helped the mine transform into a better than expected success.

Within the Lufilian Arc, the Zambian copper belt has fewer deposits, but it has most of the copper. Hitzman summarized the geopolitical climate. "Zambia is a former British colony, it's landlocked... poverty rate, as you can see," he gestured to the graph, "is pretty high. It's 70%." The Congo, a former Belgian colony, is even poorer and it is also less stable politically. Referring to a trip he took into the Congo, Hitzman said, "I basically had to go around with someone with an AK-47." He describes the experience by saying, "That's an interesting way to do work."

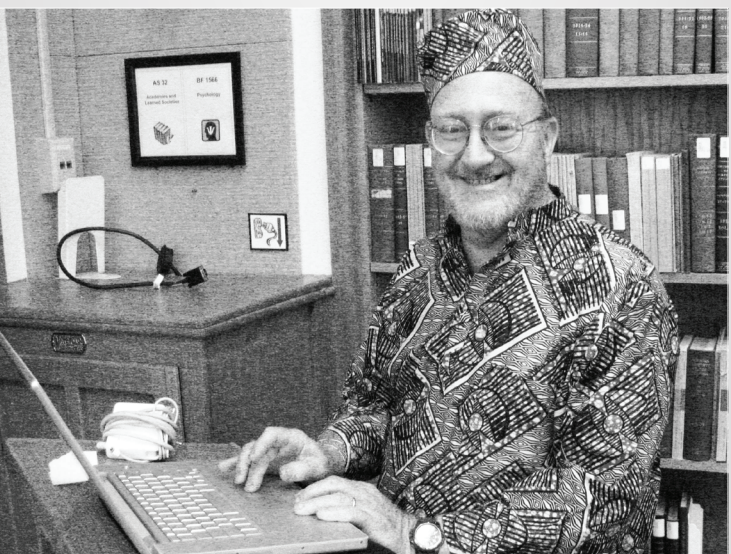
Hitzman's work in the area began when Amax asked him to analyze a small, old mine in Zambia that it had purchased. While on the project, he ventured out to visit the greater Lufilian Arc in order to "get a feeling for what the whole thing was like." However, he was unsuccessful at entering the Congo on account of the Civil War.

The research Hitzman and his team conducted helped the mine transform into a better than expected success. In lieu of this fact, interest grew about his Colorado School of Mines-based team. They ended up being sponsored by 14 companies to investigate the

Lufilian Arc. An unexpected boon to the team's research came when old drill cores from the 70's were discovered. The cores were used to construct a model about which Hitzman claimed, "I have a model, and I can predict." He went on to describe several geological features and ended with the question, "Where to drill?"

In 2003, the Congo had settled down enough for Hitzman and a colleague to go in. One of the sites they stopped at was Tenke. There they noticed the locals were illegally mining quite extensively. The word got out that Hitzman and his colleague were with a mining company and that when the mining company came in, the illegal miners would be forced away. This knowledge led to frustration, which boiled over into a riot. The result of the riot was extensive damage to the truck Hitzman and his colleague were using. A small military contingent was what it took to disperse the rioters and to keep Hitzman and his colleague from being injured. In the end, the company decided to mine there. They sent in people with guns backed by the militia to clear out the illegal miners and a fence was immediately erected before they

could return. Once the mine became operational, a third of the illegal miners were hired on as legal miners. Hitzman pointed out the positive impact of his work by conveying that, "The countries benefit from income and taxes on income." He also outlined an arrangement the companies had with both Zambia and the Congo; the countries participate in these companies as 40% joint venturers while putting no money in. He also cited benefits to the infrastructure saying, "It actually is truly improving... The roads in Zambia now are paved." He explained that before this infrastructure, many roads were simply impassable. He closed with the statement, "There's a lot more money there."



ALEC WESTERMAN / OREDIGGER

Lecturer leads a walk on the Mines geology trail

Anthony Perez
Staff Writer

This week the Van Tuyl lecture headed out on the rocks. Last Thursday, Professor Emeritus Bob Weimer and Steve Sonnenberg led a guided tour of the Mines geology trail. "It's a geological structure that we have the privilege of having in our own backyard," remarked Professor Weimer as he started the walking tour. Not only did he lecture on the geological history of the area, but he also talked about the history of Golden, Colorado. The town originally started when gold was discovered between Blackhawk and Central City. With easy access to the mines up Clear Creek and plenty of fire clay, Golden was born. In 1874, three buildings were donated and the Colorado School of Mines started. However, back then, "Students showed up just long enough to learn how do stuff in the mines—then they were off to work," exclaimed professor Weimer. There were also two mines on School of Mines campus. "There used to be a coal mine over where Brooks Field is and there is also the old white ash mine," explained Weimer. Even though the mine is closed, there is still evidence of them around campus. While the mineshafts have been filled many caverns deep under the campus remain.

Originally the School of Mines built married-student housing near where the fraternity and sorority houses are now. However, as the ground settled and the underground caverns continued to cave in, the building lost their founda-

tion and had to be torn down. "The new IM field is the newest part of the School of Mines' reclamation project," said Weimer. On the northwest end of the newly installed field a growing hole shows the signs of the shifting earth below. Additionally the new brick wall along the west end of the field is sagging in the middle. "So the best school for engineering is sinking," Professor Weimer jokingly observed. "Wherever you are, know the geology where you are," said Weimer as he continued to lecture. The Front Range uplift dominates the geology around Golden. The shift happened very quickly to the Precambrian rock to the west. "So much so that if you went to the top of the table mountains and drilled directly down you would have to drill further than twelve thousand feet until you reached the same Precambrian rock—and that's amazing!" exclaimed professor Weimer. The bluffs themselves are basalt lava flows of harder rock on top of softer eroding rock—creating steep cliff-like sides.

The walking tour then went to the most memorable stop—the dinosaur tracks. The prominent sandstone ridge (the big rock at the edge of the freshman parking lot) is the second stop on the walking tour. During the Front Range uplift the sandstone was pushed up and flopped over on its edge. Professor Weimer pointed out triceratops footprints, logs and fauna that left their cemented impression in the sandstone. Dr. Sonnenberg also added humor to the lecture. "While I generally teach students how to log a fault here you can see a fault in the log!" he joked while pointing to a crack in a fossilized log—I didn't get it either. If you missed this lecture you can still head over to the geology museum where they have tour brochures and geological maps. So whether you are interested in Precambrian formations or if you cannot muster enough courage to ask that special someone on a *real* date—head on over to the mines geology trail to explore the surprisingly interesting rocks.



ERIC LUSSKY / OREDIGGER

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Former Vigilante benefits Mines

Jared Griffith
Staff Writer

Weaver Towers, the dorms on the south west side of campus, are relatively young compared to most of the campus. However, the history of the building's eponymous benefactor is rich and unique.

Gaylord C. 'Buck' and Phyllis Weaver Towers, built in 1973, was named the Twin Towers residence hall until 1993, when it was renamed after a couple who had given more generously to the school than any Mines benefactor before them.

Buck Weaver graduated from Mines in 1926. At this time, there was a secret organization called the Vigilantes, or Vigs, of which Weaver was an original member. Attempting "to promote Mines spirit and to advocate those ideals of college life which will be of credit to each of us, and to our alma mater," the Vigs were known to set off dynamite in clay pits and paint "Give 'em Hell Mines" around Golden.

While Weaver was still in the Vigs, they came out of hiding and created a chapter of the Blue Key National Honor Fraternity. This is the same Blue Key that organizes spirit functions and maintains the "M" today.

After "Buck" graduated, he

worked for several natural resource businesses, including the United States Gypsum Company, the Cerro de Pasco Copper Company, and the Potash Company of America. He and his wife eventually made their permanent home in Carlsbad, and he founded the Weaver Drilling and Minerals Research Corporation and worked as an independent consulting engineer.

Weaver earned most of his money in the Texas oil business, becoming one of the largest independent oil producers in the state by 1960. His success brought benefits to the Colorado School of Mines, with which he kept very close connections until the end of his life.

As he neared the end of his life, Weaver dedicated \$4 million of his wealth to be donated to Mines upon the death of his wife. He passed away at age eighty-five, in 1987, and his wife passed away three years later. Mines received \$1 million toward the creation of the Weaver Chair in Chemical Engineering and Petroleum Refining and \$3 million for unrestricted endowment, the largest endowed fund up to that point in the school's history. This generosity put his and his wife's names on the suite-style residence halls students occupy today.

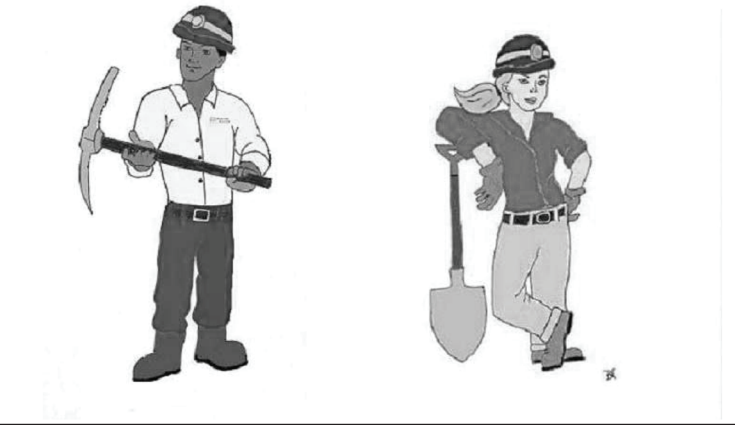


IAN LITTMAN / OREDIGGER

CAREER CENTER EVENTS BEGINNING SEPTEMBER 21, 2009

Monday 9/21/09 5:00 - 6:00 PM	Exxon Mobil (Geosciences) Information Session ExxonMobil Geosciences is particularly encouraging all students with majors: Applied Physics, Math & Comp Sci, Electrical Eng, Geology, Geophysics, Hydrology, Mining. Refreshments will be served.	Berthoud 243
Wednesday 9/23/09 4:30 - 5:30 PM	Duke University's Nicholas School of the Environment Duke University is seeking potential Graduate Students!	Berthoud 204
Sunday 9/27/09 5:00 - 6:00 PM	Marathon Oil Company Information Session Marathon is seeking ChemE, Geological, Geophysical, and Petroleum majors for Internships & FT positions. Refreshments served.	Student Center Ballrooms D&E
9/27/09 7:00 - 8:00 PM	Devon Energy (Petroleum) Information Session Devon is seeking Petroleum majors for Internships! Refreshments will be served.	Student Center Ballroom B

Digger Dave and Molly Miner remind you to stop by the Career Center - Monday through Friday, 8-5 - for resume help, interview tips, and other jobsearch suggestions! Use DiggerNet often to access opportunities!



D'Deli is a d'lightful choice for the discerning diner

LB Williams
Staff Writer

D'Deli advertises "Established 1975." The building, as a sandwich shop, supports the claim, but as D'Deli, the shop has only been operating since 2002. Al Neighbors, the current owner, purchased the shop in 2004 when the local owners had another opportunity to pursue.

Neighbors kept the name "D'Deli" because of its interesting origin. The previous owners were from Holland and had a hard time pronouncing "The," thanks to their Dutch dialect. "The Deli" became "D'Deli," and the name stuck.

D'Deli has dozens of amazing sounding sandwiches with unique ingredients such as corned buffalo, beets, honey, curry aioli, and olive tampanade. All are inventive combinations on delicious fresh bread. They have all the classics too, Italians, Clubs, and Rubens with fresh brewed iced-tea and lemonade.

All the specialty sandwiches are local customer or employee creations. Grad student Kurtis Greiss loves the Mines BBQ Blaster (honey BBQ chicken, cheddar, onions, and pickles). He says that someday he'll try something else on the menu, but the Blaster is so good he can't help but order it every time.

Neighbors, a family man and long-time Golden resident, is truly passionate about his work. He had worked in multiple local food establishments when D'Deli was available

for purchase.

Believing that, "the little things are important," Neighbors pointed out the mini-vases stuffed with local flowers on every tabletop, how he'll remember customer's favorite sandwiches (admittedly before their names), and ingredients fresh cut every morning.

Neighbors feels D'Deli is distinguished from its local competitors. The un-corporate practices of purchasing all ingredients locally and operating like a restaurant, not a for-profit business model, make the difference.

D'Deli has been successful enough to have a satellite location only blocks away. D'Deli on D'Creek is a quiet sandwich stand on Clear Creek behind the Golden Pioneer Museum. Open from May to October, its patio-only dining is quaint, quiet, and delicious.

Downtown's D'Deli had a face lift last winter. Utilizing a Golden Urban Renewal Authority Grant, D'Deli has a new window-front and cloth awning that Neighbors says, "Thankfully, won't throw wooden shingles on patrons anymore."

September 8 is D'Deli's five year anniversary. What are they doing to celebrate? They will be filling a giant sandwich order for the City of Golden. Neighbors says, "The extra work seems fitting."

"The line out the door says we're doing something right," stated a modest Neighbors. With hand created sauces and big brownies sprinkled in powdered sugar, D'Deli must be. They are able to maintain top sales with three other sandwich shops within 100 yards of them on Washington Avenue.

D'Deli fills large orders for the Mines Athletics Clubs and Mines Entrepreneurship Club regularly. Options include sandwich, fruit and cheese, and antipasto platters as well as sack lunches. Delivery can be set up days in advance for large orders, but is usually not an option.

Call 303-279-8020 or stop by to peruse the D'Deli menu and place an order. Prices and portions are more than reasonable. Neighbors also invites you to discover your own favorite D'Deli sandwich or salad this week for a discount price. Show this article at the register and receive a dollar off. Located in the heart of downtown Golden at 1207 Washington Avenue, check it out, and enjoy.



LB WILLIAMS / OREDIGGER

Farm is an interesting listen

Tim Weilert
Content Manager

After over 20 years as a band (including a brief breakup during the late 90's), Dinosaur Jr. is at it again with their newest record *Farm*. Even from the album art, it becomes increasingly evident that this record is an interesting listen. Dinosaur Jr. has always been marked by a few key features: mind-blowing, ear drum shattering loudness, tempered with J Mascis's laid-back vocal style.

To achieve the full Dinosaur Jr. experience, this album was reviewed while on a short hour-long road trip to Fort Collins. Even during the parts of the trip where I became stuck in rush-hour traffic, the feel-good rock sounds blasting out of the speakers transported me to a place of musical bliss.

The upbeat "I Want You to Know," is a good example of the current Dinosaur Jr. sound, com-

plete with driving, brightly over-distorted guitars, and a slight bit of pop-sensibility on the lyrics. Another up-front punk song is "Over It," the first track from *Farm* to receive a video (which is rather classic, featuring the band skateboarding and bmx'ing while on tour).

However, not every song is in-your-face loudness and punk rock. "Plans" scales back on the beats and guitars and brings a more mellow vibe to the record. "Said the People" also brings a similar sound and offers a nice change-up from the rest of the generally noisy record.

Overall, *Farm* does a nice job of bringing Dinosaur Jr. to an entirely new generation of fans. It is accessi-

ble while still remaining true to the sound that the group took years to develop. Dinosaur Jr. is currently on tour and will be making two stops in Colorado on October 29 (at the Boulder Theater), and October 30 (at the Aggie Theater in Fort Collins).



COURTESY DINOSAUR JR

Remember Roth IRAs for retirement

Nick Libertini
Staff Writer

When saving for retirement, individuals tend to focus solely on putting money into a 401(k). In doing so though, people are missing out on the advantages of diversifying their savings with other tax-protected accounts. A 401(k) is an excellent tax shelter for investments, especially if your employer matches your contributions. Nevertheless, money withdrawn from a 401(k) is taxed as income and investment losses inside of a 401(k) cannot be written off for tax savings.

A Roth IRA can counterbalance both of these shortcomings. A Roth IRA is another tax-protected account that allows for tax-free growth, as well as tax-free access to retirement funds. Basically, all investments inside of a Roth IRA grow free of capital gains taxes and that money withdrawn from a Roth is not taxed. Furthermore, a Roth IRA affords investors the ability to write off investment losses that exceed 2% of their gross income. Thus, if your investments take a nose dive, you can write off most of the losses in order to lower your income taxes.

Saving money inside a Roth IRA also fosters investor discipline by providing incentives to sell unprofitable investments.

So what is the catch? Unlike a 401(k), income taxes still have to be paid on money used to fund a Roth IRA. Additionally, you cannot access the money inside of your Roth IRA before you are 59 without incurring a 10% early withdrawal penalty. In spite of this, Roth IRAs are still a valuable savings tool if used properly.

What is the smartest way to use both a Roth IRA and 401(k)? First and foremost, always con-

tribute enough to your 401(k) to take full advantage of your employer's contribution matching. Otherwise, you are passing up free money from your employer.

Additionally, your income tax bracket will likely be lower when you retire because you will require a smaller income after you have paid off your house and sent your children to college. Because your income will be lower when you retire, you can use your 401(k) to sidestep a higher tax bracket while you are working (28% - 35%) for a smaller tax bracket when you are retired (25%).

After meeting your 401(k) matching bonus, save any additional retirement funds in a Roth IRA. Illustrating the benefits of using both a 401(k) and Roth IRA for retirement savings is best done with an example: Assume you are retired and you desire an annual income of \$50,000 for living expenses, traveling expenses, and any boisterous AARP parties you might happen upon. If you saved all of your retirement funds in a 401(k), then the entire \$50,000 you withdraw will be taxed at 25% and you will be left with only \$37,500. However, if you split your retirement savings between a 401(k) and Roth IRA you could withdrawal \$25,000 from your 401(k) and \$25,000 from your Roth IRA. Only the \$25,000 withdrawn from your 401(k) will be taxed, leaving you with \$43,750 in net income. That is \$6,250 in tax savings that can be used to buy ample amounts of Fixodent or Metamucil.

In summation, balance your retirement savings between a 401(k) and Roth IRA in order to diversify your savings and take advantage of three forms of tax protection (tax deferral, tax-free growth, and tax exemption).

Natural beauty enough for national monument

Sarah McMurray
Staff Writer

The city of Grand Junction is nestled between two distinct looking sets of mountains about an hour from the Utah border. Driving through, we were trying to guess which range contained the Colorado National Monument: the strange, gray one or the strange, red one spotted with green? Turns out my guess was wrong; it's the red one.

When most people think of a monument, they think of an imposing stone structure built to commemorate a person, idea or an event. Think of the Jefferson Memorial, Statue of Liberty, or Stonehenge. By their very nature, they tend to be imposing, often designed to illicit a sense of awe in the viewer.

What then, would you expect from something called the Colorado National Monument? What could represent Coloradoans, who fly their state flags so fiercely and hold being native born with a rare pride? Some symbol of a mountain? Or maybe that giant, weird, blue bronco with glittering demon eyes that greets you at the Denver airport? No. The state chooses to speak for itself. Colorado National Monument isn't just

a representation of nature, it is nature. Human hands were incapable of erecting it. They just built the roads.

Just southwest of Grand Junction, this plateau has been carved into vast canyons and flat-topped monoliths. It's lovely and bizarre, and perhaps thanks to it being close to more famous parks such as Arches, it's much less traveled. The cost is only seven dollars per car load, and whether you stay an afternoon or a week, there is plenty to see.

Geologists should get a kick out of so much exposed strata. Rangers lead rock talks, and the tiny visitor center even sells a souvenir bandanna with labeled geologic layers on it.

The breathtakingly gorgeous twenty-three-mile long Rim Rock Drive takes you along the Uncompahgre Plateau's rim up to the visitor center. The road was built by the Civilian Conservation Corps, the Depression-era work relief program for unemployed men. Small overlooks are sprinkled generously over the road, for a full afternoon of drive-by sightseeing.

If you have more time, you can

go off the beaten path on hiking or biking trails across the tops of mesas or into back country canyons. Climbing, horseback riding, and picnicking (my personal favorite) opportunities also abound.

The park began shortly after John Otto, master trail-builder, first ascended Independence Monument on July 4, 1911. He was actually making his ascent into a public trail, complete with carved steps and pipe ladders – no small feat up the sheer sandstone rock face.

The Grand Junction Daily News reported on his climb saying, "Inch by inch, foot by foot, daring, intrepid John Otto, creeping up the giant sides of Independence Monument, the highest and most noble eminence of rock in all Monument Canyon... It is a perilous piece of work he is doing, and he should receive great recognition for his feat when he reaches the summit." When President Taft established the park a year later, Otto was its first caretaker.

Although Otto's original trail is no longer in use, the tradition of climbing the monument every July 4 still is.

The Informant flops

Zachary Sorenson
Staff Writer

The new movie *The Informant!* starring Matt Damon is "based" on real events set in the early nineties. Mark Whitacre, played by Damon, decides to take down the business ADM, which Whitacre claims is company to an international price fixing scheme. He does this with help from the FBI, who uses him as an informant.

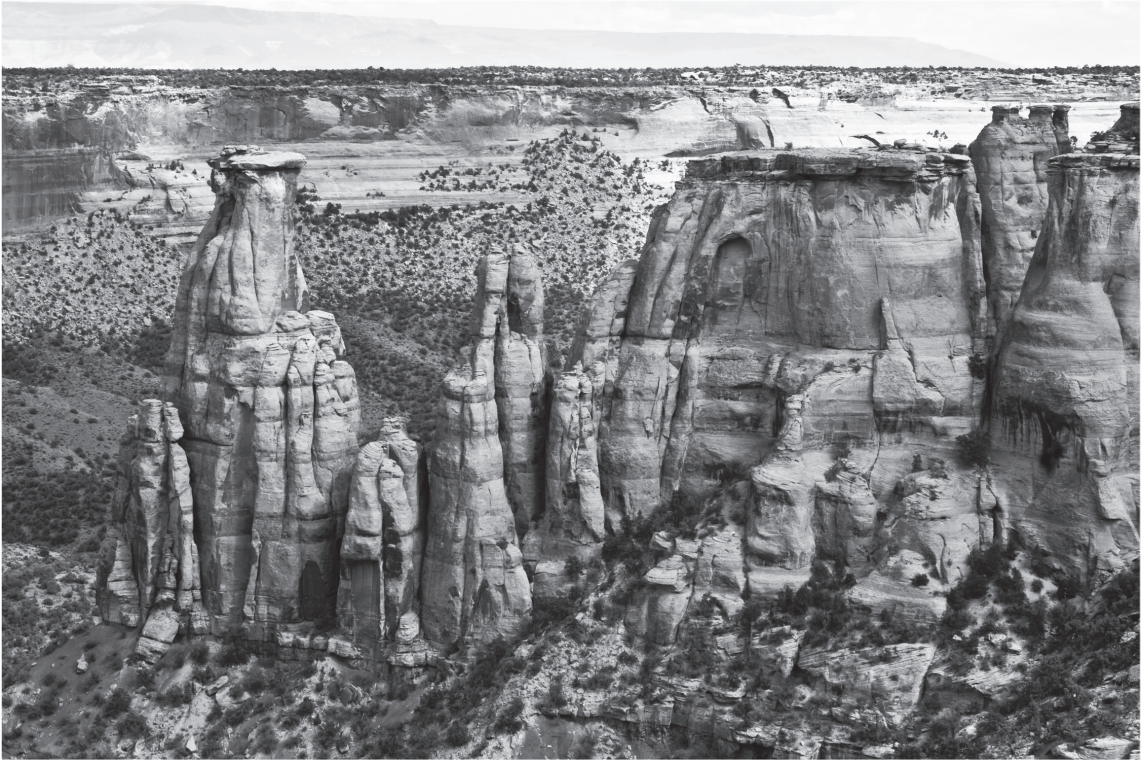
The movie showed promise towards the beginning, but it dragged on. Whitacre's inner monologue – narration of his thoughts which permeated the movie – was quirky and clever for the first 30 minutes. However, this effect was over-utilized and by the end of the movie Whitacre's thoughts were annoying and inconsequential. The inner monologue also forced the audiences entire attention to Matt Damon. There were other interesting characters whose inclusion would have made the movie more compelling, but halfway through their introduction, Mark Whitacre would put in his two cents, and the focus was back on him. For someone obsessed with Damon, this may be a treat. For the rest of us, though,

two hours of Matt is far too long.

Another problem with *The Informant!* is that it leaves the audience out of the loop. The main character Whitacre is designed as a dishonest character, which made relating to him nearly impossible. While having an unreliable narrator can sometimes be effective in novels, it was not the case in the movie.

The trailer indicates that *The Informant!* will be a slightly silly story about a bad informer that somehow got hired by the FBI. If this is what you were looking for in *The Informant!* you will be sorely disappointed. There were two or three witty remarks, but there were none of the over the top theatrics that the trailer promised. This is a movie so high brow that in order to understand every joke, you would need at least two doctorates.

In short, the movie was too ridiculous to be a serious drama, but had too few elements of what makes movies funny to be a comedy. When you mix the two together, you find yourself leaving the theater with a feeling of, "So what?" and wanting two hours of your life back. Do yourself a favor and avoid seeing this movie.



SARAH MCMURRAY / OREDIGGER

Brookie satisfies a combination of cravings

Kaneesa Felton
Staff Writer

Brookie? What the heck is that? Well, my friends, I asked the same thing when my mom showed up in my room with one of these concoctions and a glass of milk. It looked just like a brownie, but when you got a closer look, it had the distinctive appearance of a cookie also. Hmm, I thought, there has to be a mistake.

There's no way that a cookie and a brownie could taste well together. But after the first bite, I could deny it no longer: brookie might be a good thing. Now, brookies from a box are available at Walmart and probably most supermarkets, but I decided to try a completely homemade version—let's hope it goes well!

Preheat oven to 350° F. Grease either a 13" x 9" pan or

9" x 9" pan. You can use Crisco or vegetable oil; when using vegetable oil, sprinkle flour over top and pat the sides to ensure it is spread evenly.

Cookie Mix

- 1 pound butter
- 1 cup sugar
- 1 cup brown sugar
- 2 eggs
- 2 teaspoons vanilla
- 2 ½ cups all purpose flour
- 1 teaspoon baking soda
- 1 teaspoon salt
- 1 bag of semi-sweet chocolate chips

In a bowl, with an electric mixer, beat butter and the sugars until light and creamy.

Add eggs one at a time then add vanilla to the mix.

In another bowl, stir together flour, baking soda and salt.

Gradually add the flour mixture to creamed mixture, blending thoroughly.

Add in the chocolate chips.

Brownie Mix

For the brownies, just to make it easier on yourself, buy a box of brownie mix and make as directed on the back of the box.

Put the brownie mix in the greased pan. Take the cookie mix and spoon it over the top of the brownie mix. (You will have extra cookie mix. Yay, cookie dough!) Bake in the oven for about 20-25 minutes or until a toothpick inserted 2 inches from the side of the pan is clean. Let cool before cutting them.

For fun variations, try adding nuts or fruit to the cookie dough mix.

Enjoy!

Brewer's Lunchbox provides extensive tasting opportunities

Kevin Lock
Staff Writer

In the spirit of the Great American Beer Fest this week, I felt that the only responsible thing to do is research some of the different types of beer available. As a beer lover, I thought about what I knew, ESB (extra special/strong bitter), IPA (India Pale Ale), American Pale Ale, stouts, wheat beer, copper ales, and hefeweizen to name a few. However, after starting to look into what beer was out there I realized that I was barely scratching the surface.

There are two basic types of beer: ales and lagers. These distinctions come from the brewing process. Under these categories there are hundreds of variations, and those who are lucky may be able to find the one that truly matches their palate. Ales are the most common type here in the USA and are fermented at higher temperatures of approximately 65-75 degrees and the brewers use top fermenting yeast.

While brewing lagers, bottom fermenting yeast is used and the mixture is kept at much cooler temperatures of 45-55 degrees. As far as most drinkers are concerned, the main difference is that ales will have more flavors and generally have some detectable fruit flavors and more complexity, where lagers have a less complex 'crisp' flavor.

While touring beers, either through the sampling booths at a beer festival or through six packs from Foss, keep an open mind. To learn which styles you like, I recommend 12 beer sampler packs from any of the local breweries. After a quick run to the store, I was able to find a true sampler pack which has both lagers and ales, chocolate stout to pomegranate wheat; the "Brewers Lunchbox" from The Fort Collins Brewery has two bottles each of six different brews. I was able to pick up Brewer's Lunchbox for \$15.99. This pack included four ales; Chocolate Stout, Major Tom's Pomegranate Wheat, Rocky Mountain IPA, and Retro Red. Two lagers were also included in the Lunchbox, Z Lager and The Kidd Lager.

Chocolate Stout is very smooth with a slightly bitter starting flavor and

an aftertaste that resembles dark chocolate. This beer has a very dark color with a thick, dark brown resilient head which only gives a slight feeling of carbonation. Unlike many chocolate types of stout this beer is slightly more bitter, due to hops with less of a malty finish, with this slight variation I feel that Fort Collins Brewery has created an easy-to-drink chocolate stout.

Major Tom's Pomegranate Wheat has a light honey color when poured into a glass and has a unique flavor where the pomegranate does not overpower the beer. The pomegranate flavor is present during the entire flavor transition with a sweet flavor throughout and a tart aftertaste.

Rocky Mountain IPA has a sweet flavor with hoppy bitterness in the finish. Some IPA brews can have harsh flavors that make them difficult to drink by themselves or consecutively, but Rocky Mountain IPA is sweet enough to drink and repeat without hesitation. I highly recommend this beer for someone who is starting to break into the realm of more hoppy beers and the wonderful world of IPA.

Retro Red's color and flavor fit its name with a dark red color, "Retro Red has a crisp, clean and nutty flavor," said a fellow taster. With a weak head which does not ring the glass, this beer is refreshing, flavorful and finishes with a subtle bitter hint.

Z Lager is one of the most flavorful beers in the bunch with a smooth, non-bitter flavor and mild smoky aftertaste. For those who love smoky scotch, this beer may be a good segue into the beer world. The smoky flavor is very subtle and this lager drinks very smoothly and seems to drink more lightly than most lagers. Fort Collins Brewing does a great job at summing up this beer on the side of the bottle, "The lingering smoke flavors, slight caramel undertone, and amber color make Z an unexpected treat alone or as a compliment to a good meal."

The Kidd Lager is a very dark brew with a slight red hint and a strong caramel aroma. This beer is the only one in the bunch that I can

say I don't truly enjoy. The bottle claims "Looks Dark, Drinks Blonde" and I agree with this quote because it drinks very smoothly. However, it has a bitter, coffee-like finish. Although this is not my favorite beer, I can appreciate that this dark beer is smooth with multiple malty flavors.

Exploring the world of beers is an exciting pastime and I hope that those who were able to get tickets to the Great American Beer Fest enjoy the experience and for those who were not able to get tickets should make a trip to the local liquor store and broaden their horizons with a sampler or Lunchbox.



KEVIN LOCK / OREDIGGER

"Kooza" doesn't disappoint

Alee Barlin
Staff Writer

Originating in Canada 25 years ago, the Cirque du Soleil has traveled the world, combining circus acts, clowns, and operatic-style storytelling into fantastic, emotional tales. Renowned for the prowess of the cast, each story is told with minimal speech, relying more on the music and the body language of the cast.

Kooza tells the story of The Innocent, a kite-flying loner, as he experiences the world of the Trickster, a flamboyant and crafty master. Each act features increasingly impressive and dangerous stunts, demonstrating the extents of human endurance and the aspects of the world of Kooza. The audience and the Innocent learn about the world and the Trickster and the Innocent learn about themselves, developing through the story.

The Innocent is introduced to Kooza by the Trickster, who uses his powers to call forward a ship bearing the King and his court who launch into a whirling dance, stacking up to three people on huge wooden balls. The court leaves the stage to a set of three young contortionists who set incredible tableaux. A moment of slapstick between each act introduces them, such as the solo trapeze artist followed by an impressive dis-

play of trust and balance though a unicycle duo. Four men ascend a dual high wire unit and begin their breathtaking dance above the stage. Only one slip caught by a fingertip marred the beautiful performance which culminated in two men holding up a third sitting in a chair on a single beam. A 30 minute intermission allows for the removal of the high wire and for the audience to take a break.

When the lights dim again after the break, a single spotlight picks out the Innocent in the center of the stage, emulating the Trickster lighting the world of Kooza, but sometimes powers go wrong. Death enters with his skeletal troop, dancing around the Innocent, but they just want to have fun like their Earthly compatriots. The "Wheel of Death" is introduced, a suspended hourglass-shaped contraption with a cylindrical platform on either end that two men power by walking around in. The wheel turns as they perform jumps and flips inside and out.

A bit of clowning to calm the audience after two near misses with the Wheel of Death results in a mark from the audience being called to the stage and subjected to the pawing hands of an excellent pickpocket. Following a short juggling act, a tower of chairs 28 feet high supports a single man as he balances his entire body on one hand. The final act culminates in a

man with a single stilt strapped to both legs being launched, flipping in the air, and landing on the stilt before the Innocent must be sent home from the world of Kooza and the strange people who inhabit it.

Every act was full of gasps, the costumes were amazing, and the performances were simply astounding. The atmosphere was electric as time flew past, making the 3 hours feel far too short. Perhaps the most impressive part was its location: the middle of a parking lot next to the Pepsi Center, under a huge tent. Out from under the "Grand Chapiteau" was a slightly calmer circus experience. As a one tent show, there are no elephants walking around or clowns in every direction, there is nothing extra to distract you from the main attraction.

Kooza is simply astounding, tantalizing every emotion known, leaving nothing wanting. The tickets may be a little pricey for a student, but every dollar is well spent and the memories will last a lifetime, particularly since a show may take several years to return to the United States as it tours other continents. If the chance presents itself, take it by all means. Each show has its specialty and each tells a different story, to find out more, visit www.cirquedusoleil.com for an overview of each show, trailers, and to get some free goodies.

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More photos from the Fort Lewis game on Saturday. The Orediggers will be back at home on October 10 to play Western State in the Homecoming / Hall of Fame game.



ALL PHOTOS STEVEN WOOLDRIDGE / OREDIGGER



First regular-season game surprises

Zachary Sorenson
Staff Writer

The first week of football was filled with surprises, upsets, and miracle touchdowns. The last on the list is the most important for anyone in our area. If any of you haven't read, heard, or seen anything about it, the Broncos achieved one of the most dramatic victories in recent memory. After more than three quarters of relatively calm play, the Broncos found themselves in a six point lead, having scored field goals in both the second and third quarters. The Bengals found themselves in a desperate drive in the closing minutes of the football game. Bengals quarterback Carson Palmer showed up to play just when he needed to, completing an all but perfect drive down the field to end with a one-yard run from running back Cedric Benson into the end zone. The extra point put the Bengals ahead of the Broncos 7-6 with 38 seconds left in the game. The Bengals offense left the field feeling all to certain that in less than a minute they would be heading to the locker rooms with smiles on their faces.

After a disappointing kick return the Broncos found themselves 87 yards from the end zone. With maybe two plays left, Broncos quarterback Kyle Orton took the field and prepared to throw a couple passes down field and hope for the best. The first throw was off target and nearly intercepted by the Bengal defense. The last throw of the game was intended for Brandon Marshall, but got tipped by a cornerback right into the arms of Brandon Stockley who proceeded to run, unchallenged, into the end

zone that had, only seconds before, seemed impossibly far away. Stockley describes what happened immediately after he scored, "When I scored, I just remember it being quiet, and that was a good feeling." Bengals coach, Marvin Lewis was disappointed, albeit surprised; "You don't get situations like this in practice to prepare for, but we got it today unfortunately and didn't execute it."

This game is sure to go down in the memory of all Broncos fans for a very long time. Making it like a Christmas morning for Broncos fans, the Green Bay Packers defense left us the present of making Jay Cutler look like a sub-par quarterback. He threw a career-worst four interceptions, leading his Chicago Bears to a 21-15 loss against the Packers. In other parts of the league, the Steelers won their season opener, which brings them to seven season opener victories in a row. This was due in part to quarterback Ben Roethlisberger throwing for 363 yards, with two interceptions. Drew Brees threw for an impressive six touchdowns with only one interception leading the New Orleans Saints to a 45-27 trouncing.

The NFC East returned the most victories in their division from the first week of play with wins from the Philadelphia Eagles, the Dallas Cowboys, and the New York Giants. It's hard to pick a favorite at this point in the season, but Broncos fan's hopes have gotten a much needed boost since their poor showing in the preseason. Let's hope that this good luck carries for the rest of the season.

Sources: <http://sports.espn.go.com/nfl/>
<http://www.bengals.com/news/>



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Geek of the Week

Alec Westerman
Staff Writer

...Jessica Thompson, Junior: Civil Engineering

Do you consider yourself a geek?

No, not at all. I really don't. The only time I have really been called a geek is by my roommate, because I am really into architecture and I start talking about these buildings and how I like the city because of how a building looks. I really like chemistry, too. For some reason I think a lot of people hate it, but it's a lot of fun.

Favorite class at Mines?

Right now it is Structural Theory, just because Joe Crocker is a really good teacher and he makes it interesting. And it's interesting subject matter. I mean you're looking at truss and cables and you're looking at buildings and you're seeing the background of it and your thinking how is this put together. Is it stable? What I like about it is that I like the architectural side of things. And this [class] is taking that side and looking at it from the engineering perspective of it and saying "How does this actually work?"

How did you come to Mines?

Definitely by accident, I started looking up colleges and I had visited Denver (when I was 18) and I liked downtown Denver. I am from Portland, Oregon and I was looking for a college to transfer to after I had spent three years in community college. And so I looked for school around Denver, and I actually went on MySpace. And I

figured that people who know the best colleges in each state are from the state. I went online and tracked down people from Colorado and asked them what the best engineering schools in Colorado are. And they said Mines and CU Boulder. And CU boulder at the time seemed huge to me. I wanted a small school/smaller class size. Process of elimination.

What clubs and activities are you involved in?

I am really involved in National Society of Black Engineers, on the regional and chapter level. On the regional level, I deal with the communication with the collegiate chapters in Wyoming, Utah, and Colorado. I am also the chapter Secretary for NSBE, I am getting more involved with SWE, and I am the director of diversity and departmental communications.

What is your favorite geek joke?

I don't know [laughing] Ok, ok I know. There is this really funny chemistry joke. It's not geeky in terms of math but: "You have a bird wear a rain jacket and he is flying through a rain storm. So what do you call him?"

I don't know. What?

Polyunsaturated. I love that joke, I heard it when I was 19 and I think it's so funny. Because I think of a cute little bird in a little yellow rain jacket.

I expected a Monty python

joke.

No, I actually don't like Monty Python, I don't like video games, computer games, and I generally don't like spending a lot of time on the computer. This really goes back to the question do I consider myself a geek and, stereotypically, if you look at what a geek is, I don't, because I am a huge people person. I love to be around people. I love to be put into cultures and situations that might be new to me so I learn something.

Do you have a favorite Formula?

Well I like this comic called "Get Fuzzy" and they related "E=mc²" to cats and rats and how cats catch mice at a certain rate. I really like animals and I am a big cat person. I also like in Mechanics of Materials how if the moments are upwards they are smiling. That makes me happy because I enjoyed Mech. of Materials as well.

What is your favorite Movie?

I have a lot; I love foreign and independent films. But I would have to say its either *Amelie* or *Chocolat*. Also I saw the Star Wars movies for the first time last summer, and I have never seen Monty Python movies.

If you were stuck on a deserted island and you could only bring 3 items, what would they be?

My camera, I love taking pictures. My inhaler, I am really asth-

matic, that probably makes me really nerdy, because I always was the really skinny girl who had the inhaler and always had to puff it after gym class. And then I would take my best friend Jessica, wait can I take people?

What are your hobbies?

I really like photography; I really like card designing (paper craft). One day I hope to open my own card company. So I have my own logo and stuff. I enjoy art in general, I like different mediums. I don't do them the most but I am interested in ceramics and glass blowing. Also I love the beach and water activities as well as city life.

What are you going to do once you leave Mines?

I would like to do construction management for a couple years and see where that takes me. Maybe eventually get into architectural engineering but right now get the experience in construction management. I plan on moving to either the west or east coast. I am a huge coast person.

If you could come up for a class for CSM what would it be?

It would be a drafting class for

civil engineers, drafting with AutoCAD. We would draft floor plans of buildings and larger infrastructures.

Mines, what do you love, what do you hate?

I really like how you get to know your professors really well, and how you know all your classmates. I also like how you always have stuff to do. I wish the campus was more diverse and more social.

What do you think of the ratio here at mines? At first I thought, "Oh, this can't be bad," but then after being here a while I think feel bad for both the males and females. I think the social life on campus would be a lot better or more like typical college life.



COURTESY JESSICA THOMPSON

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Connect Colorado, Connected Nation and \$300 million down the drain

Ian Littman, Assistant Business Manager, Web Content

As everyone knows by now, I like the Internet, a lot. I also don't particularly like big government because it tends to intrude into issues it knows just enough about to get everyone hurt. Unfortunately, it appears as though these paths have crossed due to the American Reinvestment and Recovery Act's large outlay (\$7.2 billion) toward better broadband and those who would convince the government that the status quo is "just fine" through "astroturfing" groups funded by the powers that be in the telecom industry.

Or, more precisely, the telephone industry.

\$300 million has been set aside in the ARRA to accurately map US broadband

penetration. This is a laudable goal. It's a bad idea to throw billions of dollars at a problem that's obviously worse in some areas than others. For example, as much as I want ultra-high-speed fiber to the home in Golden, Comcast's DOCSIS 3 cable service is fast and reliable, and there are areas that flat-out don't have a decent option for a decent home high speed internet connection (satellite internet doesn't count, and 3G wireless shouldn't). The

problem is who to commission for finding what areas need help and what areas don't.

Enter Connected Nation, ostensibly a happy little nonprofit devoted to finding out whether Joe consumer has a decent connection at his doorstep, or whether he's stuck on the wrong side of the digital divide. Broadband mapping is done by state, and so far, the organization's arms Connect Minnesota and Connect Florida look to have gotten the contract to map out those states.

Here's the problem: Connected

Nation's operating capital currently comes from none other than AT&T, a company satisfied with bolting on current-generation technology (VDSL) to

last-generation networks (copper telephone lines) in an attempt to deliver next-generation services (high-definition TV, ultra-fast internet, and VoIP phone service).

The bigger problem is that it's in AT&T's interest to overstate their own DSL coverage and understate everyone else's, including cable companies' service areas. One reason is to cast themselves in a good light and cable providers in a bad one. The second reason is more

insidious: if AT&T "provides service" in a given area, companies wishing to expand into that area don't get government funding to do so. This means that AT&T won't face government-sponsored competition if and when they do decide to expand into areas that they don't currently serve.

To this end, their state websites are a bit biased. Connect Colorado, this state's arm of the organization, isn't even hosted in the state, and speed test results collected will have a downward bias. This wouldn't be so bad if the bias wasn't nearly non-existent on Qwest DSL, but painfully apparent on both my Comcast cable connection and on Mines' own high-speed network.

Testing from Qwest, Comcast, and Mines connections, only the Qwest one came close to speeds exhibited by other speed tests, whereas Comcast fell short of advertised speeds despite PowerBoost being enabled during the test. This is the connection that rates around 30 Mbps down and 10 Mbps up on other tests.

What's disturbing is that you're asked for address information along with the speed test, so the assumption is that Connect Colorado is recording these (inaccurate) results and integrating them into their broadband mapping strategy.

There are a few more insidious

things about the Connect Colorado website. For example, forms may or may not be submitted to the Connect North Carolina website, at best confusing people who submit those forms and at worst, cross-pollinating databases and making both worthless. It's interesting to note that North Carolina has historically had sub par internet connectivity versus, say, Colorado; local telephone company Embarq and Time Warner Cable both fought tooth and nail to prevent the city of Wilson, NC from building their own high-performance fiber network for residents. Elsewhere, residential broadband speeds top out at ten megabits on downloads and a megabit on uploads.

To add confusion to insult and injury without seeming to do either on the surface, the creators of Connect Colorado have carefully chosen the broadband statistics reported by their customer information collection tool. For speeds, they give the option of less than 384 kilobytes per second, about 768 kilobytes per second, about 1.5 megabytes per second, about 3 megabytes per second, about three megabytes per second, about six megabytes per second and over six megabytes per second.

That's all well and good if people read the choices carefully, but unfortunately, many people don't know

the difference between a megabit and a megabyte (a factor of eight). They will thus erroneously choose "over 6 megabytes per second" for their supposedly-seven-megabit Qwest DSL connection, which in reality runs at about 6 Mbps, or "about 768 kilobytes per second" on the reporting form. The only *real* "over six megabytes per second" residential connections in Colorado are those running on Comcast's highest DOCSIS 3.0 tier, which does, in fact, deliver on its promises as long as the server at the other end of the connection can serve up content quickly enough. I know; I tested the service two weeks ago.

More savvy customers will read the options and choose correctly, and many of those customers will be on cable, thus creating a downward bias in the information relative to cable companies. Call me paranoid, but I don't think that the speed choices are accidental either; all but the 384 KB/s tier are identical to AT&T's own regular DSL speeds, though AT&T's advertised speeds use bits as the unit instead of bytes.

Broadband mapping is an important topic; it might mean the difference between having low quality cellular or satellite Internet and having high-speed cable, DSL or even fiber to where you live or want to live. We can't afford to let this get messed up.

Make a difference with Alpha Phi Omega

Emily Trudell
Staff Writer

With all of the many organizations on campus, it's difficult to find a club that not only helps combat the frustration of school, but also aids the community. Alpha Phi Omega, or APO, is a co-ed, non-Greek, service organization that allows students to escape from the trials of school, as well as assists the community.

APO began in 1925 at Lafayette College in Pennsylvania, and was founded on the ideals of Boy Scouts of America. While it was originally a male-only organization, women were allowed to join beginning in 1976. Nationally, APO is the largest college service organization, as well as the largest Greek-letter organization in the United States.

At the Colorado School of Mines, the Mu Pi chapter was originally founded in 1958, but fell apart in 2007. This coming October, APO is looking forward to becoming re-chartered, that is, regaining their charter and becoming a recognized chapter of APO. "I'm so excited to charter this October and celebrate our success!" said Michelle Reynolds.

The main focus of the fraternity is service for the campus, the community, and the nation as a whole, not to mention fun social events as a chapter. According to Andrea McCarty-Daniels, "We do tons of events such as capture the flag, jeopardy,

and movie nights to improve our friendships and links to others in the group."

APO also offers opportunities for members to become involved in leadership roles, "Our positions include: President, Vice President of Service, Vice President of Membership, Vice President of Fellowship, Treasurer, Secretary, and Sergeant-At-Arms," said Laura Briggs.

"I was drawn to APO because of my history in Girl Scouts, and service oriented clubs in high school such as National Honor Society. The low dues [\$35/year] were also a huge draw to me - what a small price to pay for such a recognizable organization!" said Michelle Reynolds, the Vice President of Service.

The first week of November is Alpha Phi Omega's National Service Week. This year's theme is Environmentalism, and the Mines chapter plans to plant trees during that week.

Moreover, APO will be holding their recruitment this week, with info sessions on Monday the 21 at 7 PM in Berthoud 243 and on Tuesday the 22 at 7 PM in Berthoud 204. As stated by Michelle Reynolds, "You are welcome to join us at our weekly meetings - every Sunday evening at 7 PM in the Student Center Ballroom A."

For more information or a complete schedule of recruitment events, contact Cindy Allshouse at callshou@mines.edu.

Chemical engineering offers endless potential

Sarah Nelson
Staff Writer

Within the bounds of Alderson Hall, against the backdrop of a nearly reverential display of blissfully colored stained-glass windows, resides CSM's Chemical Engineering department. Degrees offered by the department include a Bachelor of Science in Chemical Engineering as well as a Bachelor of Science in Chemical and Biochemical Engineering. The difference being that the latter, in addition to being a fully qualified Chemical Engineer, has additional training in bioprocessing technologies.

What, however, does chemical engineering really mean? Classically, a chemical engineer is defined as an engineer concerned with the design and operation of an industrial power plant. Today, that constricting definition is woefully inadequate in describing the expanse of all that chemical engineering really encompasses.

In order to define what exactly a chemical engineer is, a deeper look into the multi-faceted degree is required. The coursework is a good place to start, and with a base of math, physics, and chemistry classes, a subsequent understanding of these disciplines intertwine to create a strong grasp of how the physical world works on the most fundamental level.

Next, students focus on the chemical engineering coursework,

which blends chemistry, math, and physics into a series of engineering fundamentals relating to the production and processing of materials. Examples of these courses include fluid mechanics, heat and mass transport, thermodynamics, and reaction kinetics. Equipped with these intellectual tools, chemical engineers are able to pick from an array of many diverse fields in which to direct their attention. Examples of these are advanced materials synthesis and processing, product and process research and development, food and pharmaceutical processing and synthesis, biochemical and biomedical materials and products, microelectronics manufacture, process and product design, and the list goes on.

In order to exemplify the broad nature of chemical engineering, all that is needed is a closer glance at the professors in the Department. For instance, Dr. Marr focuses on microfluidics and biomedical micro devices, while Dr. Herring's work involves renewable energy and fuel

cells. Dr. Bunge deals with dermal absorption of chemicals, and Dr. Dean's attention is focused on atomistic modeling and simulation, biofuels, and thermochemical biomass conversion. Dr. Liberatore's interest is in the rheology of complex fluids.

In conclusion, at its core, chemical engineering is about gaining fundamental knowledge about a substance and its behavior and then utilizing that knowledge to synthesize a solution to whatever problem the chemical engineer decides to tackle.



BREE WALTMAN / OREDIGGER

Tim's two cents

Lessons learned from Kanye West

Tim Weilert
Content Manager

If you were in a cave on the moon for the last year, then this might come as a surprise to you: Kanye West made a fool of himself again. This piece is not intended to be a critique of West's musical styling or records, but rather a commentary on egotism vs. humility.

West's most recent controversy, which involved rudely interrupting Taylor Swift during the MTV Video Music Awards, is really nothing new. In 2005, as part of a Hurricane Katrina benefit telethon, West infamously went off the script saying "George Bush doesn't care about black people." A year later he interrupted a European music award ceremony, complaining about not winning.

The most recent outburst had even President Obama calling Mr. West a "jackass." So then, what

can we learn from Kanye West's jackassery?

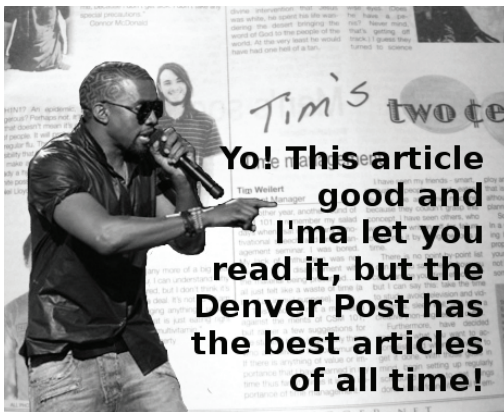
1. Talent is largely subjective. That is to say, skills (such as singing or engineering) can be objectively honed and improved upon. Talent, on the other hand, seeks validation from outside sources. If you are naturally talented there is no need to become an ego-maniac.

2. Think before you speak or act. Perhaps what has gotten West into so much hot water is his sheer lack of foresight. If something is going to be offensive, for no other reason than offense-sake, please think about its implications first.

3. Invest in security. If you're running any large awards events and you hap-

pen to invite Kanye West, make sure he doesn't get on the stage.

4. A little humility goes a long way. This is similar to point #1, however I feel that it represents something more important. While avoiding egotism is good, being humble is even better. That is not to say "be timid," but always try to stay well grounded in reality.



TIM WEILERT / OREDIGGER

Board of Trustees holds first meeting of the year

Damian Illing
Guest Columnist

Welcome back to Mines, everyone. My name is Damian Illing and I am your Board of Trustees representative for the 2009-2010 academic year. Throughout the year, I will be attending the Board of Trustee meetings and telling you all about them in my column here in the Oredigger.

The first board meeting of the year was on Friday, September 11 and I have a great deal of information for you all. First, President Scoggins noted that the school is responding very well to the threat of H1N1 on campus, but requests everyone's continued cooperation in ensuring that students and faculty stay healthy throughout the year. Most importantly, if you are feeling sick, **please stay home**. The faculty is actively working with students who self report their illness at inside.mines.edu/Flu so that they do not fall behind in their class work.

Following a wildly successful Career Day on September 15, I have great news about job prospects for Mines graduates. For the graduat-

ing class of 2009 at CSM, approximately 80% of all bachelor's degree students, 92% of master's degree students, and 95% of Ph.D. students are currently working or enrolled in graduate programs around the world.

Furthermore, despite the economic recession, the average salary for new Mines graduates held constant about \$60,000 per year for bachelor's degree students (first in the country for public institutions!).

The economic recession hit many institutions across the country very hard. Thanks to generous donations from alumni and other sources, Mines ended the year financially stronger than anticipated. This is in spite of a \$4.5 million reduction in state funding through cuts to the COF program and the Fee for Service grant. Mines hired 20 new faculty members last year, and is currently in good financial standing.

Finally, there was discussion about capital construction projects around campus. \$3 million in proposed financing was approved by the board for an expansion of the new housing project. It will now hold 291 beds and be located just south

of Brown Hall. Groundbreaking is anticipated to begin in February or March 2010, and it is expected to open in August 2011.

The Brown Hall addition project is currently set to break ground in January or February 2010 for an opening in summer 2011 at a cost of approximately \$32 million.

Construction of Marquez Hall is also expected to begin soon; financing to begin construction is anticipated in November 2009.

Additionally, a new parking garage is planned behind the ROTC buildings, near the traditional residence halls. The timing of this project is unknown, but I will keep you updated on any developments.

In the meantime, to ease the parking problem on campus, ASCSM has requested construction of a gravel parking lot on the previous Hall of Justice site. This construction has not been confirmed, but I will again keep you updated.

If you have any questions or want to know more about any of these topics, feel free to come visit me during my office hours in the Student Activities Office from 11:00 AM to 1:00 PM on Tuesday afternoons!



Minds at Mines

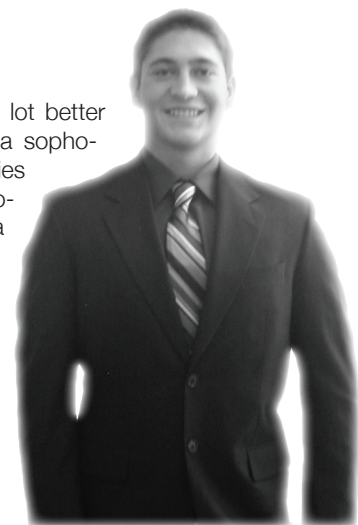
Going to the Career Fair

Roby Brost
Staff Writer

It is often possible to tell that a fair is in town by the face-painted youth, fingers sticky from cotton candy and an irrational desire for fried dough smothered with powdered sugar. While there was a notable lack of funnel cake, the Mines Career Fair nevertheless provided tell-tale signs of its presence. It is a time when students on the Mines campus put aside t-shirts, flip flops, and jeans for the nice business attire hanging in the back of the closet. When pressed suits, shined shoes, or the occasional pair of high heeled pumps replace the more common uniform of sweat stained tank Under Armour and jersey shorts that typically stroll the Student Recreation Center, it is a safe bet that Career Fair has arrived. This fall, over 180 companies were represented on campus and many students patronized the fair in the hopes of jobs, internships, or just experience. Despite the blatant absence of a Ferris wheel, many students walked away from Career Fair with a positive experience.

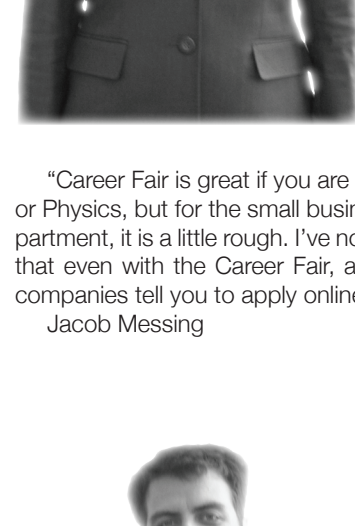
"I thought that Career Day was a lot better this year than last year. Just being a sophomore there are a lot more opportunities for jobs. I got an interview spot for tomorrow, just because I am no longer a freshman. As long as you are at least a sophomore, it seems like there are a lot more opportunities."

Ramon Ortega



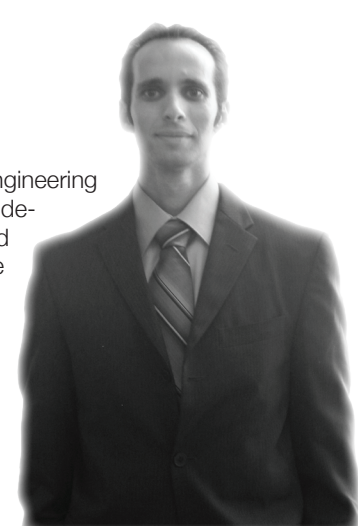
"I have been coming to Career Fair for the past four years. I got an internship last year, and now I am looking for full time employment. It seems like I have several good options."

Rachael Tanaka



"Career Fair is great if you are in Engineering or Physics, but for the small business department, it is a little rough. I've noticed that even with the Career Fair, all the companies tell you to apply online."

Jacob Messing



"Since the economy has been getting better, I think that companies can afford to start looking for people again. The Career Fair definitely had more opportunities this year."

Gabriel Green



ALL PHOTOS ROBY BROST / OREDIGGER



ALEC WESTERMAN / OREDIGGER

Editorials Policy

The Oredigger is a designated public forum. Editors have the authority to make all content decisions without censorship or advance approval and may edit submitted pieces for length so long as the original meaning of the piece is unchanged. Opinions contained within the Opinion Section do not necessarily reflect those of Colorado School of Mines or The Oredigger. The Oredigger does not accept submissions without identification and will consider all requests for anonymity in publication on a case-by-case basis. Submissions less than 300 words will receive preference.

Fool's Gold

“As organized as your closet”



Real gold nuggets at CSM career fair

Nick Libertini
Nugget in the Rough

The Colorado School of Mines' Career Fair boasts one of the largest spreads of free trinkets and gadget give-aways in the world. Companies use these “freebies” to attract students to their booths. This phenomenon results in a speckling of students hauling around bags bursting with pens, stress balls, pocket protectors, and hazard cones that they have collected.

The “coolness” of a company's booth can be scientifically measured by the diversity and quantity of interesting gadgets offered to students. Additionally, it is not uncommon for companies that run out of give-aways to start looting other booths in order to replenish their stocks. It is estimated that a company receives 1-5 cool points for every gadget they offer students, and negative 10 cool points every time they mention online resume submission.

Not surprisingly, the quality

of free swag was elevated this year, as companies competed feverishly for the highly prized “cool points” awarded by CSM students. In an attempt to boost their booth attendance, one mining company, ORE-Diggers, began handing out nuggets of real gold. Some of the nuggets were appraised by geology students as being worth well over \$4,000!

As word spread about the free gold nuggets, career fair attendees began swarming to the ORE-Diggers booth in order to claim their stake of the precious metal. Unfortunately, the struggle for gold turned violent, as students began using foam stress balls as weapons, albeit ineffectively. One senior faculty member commented that he, “hadn't seen a gold rush like this since '49.”

ORE-Diggers' gold nugget maneuver severely weakened the booth attendance of other companies, causing many booth representatives to break down into tears as they lapsed into “cool point withdrawal” (CPW). However, one savvy environmental

company was quick to counter-act.

Hippies-R-Us began handing out hybrid cars to entice visitors back to their booth. “This year's career fair was a real steal for me,” Melissa Rhodes said Tuesday afternoon, “I got a brand new hybrid car, which is a step up from the “I hug trees” stickers that the environmental companies usually hand out!”

Both of these strategic moves left the petroleum companies reeling. After consulting OPEC, however; the petroleum booths stepped up to the plate and started writing their booth visitors \$30,000 checks. This proved to be a knockout punch, as students spent the rest of career fair trying to get their hands on a \$30,000 pay day.

One of the least popular booths at career fair was hosted by Initech. Apparently their masterful strategy was to entice students by giving away authentic TPS reports. Ironically, none of the companies at career fair were hiring.

Shouting found “beneficial” Practice with siblings makes perfect

Janeen Neri
Soft Lungs, Loud Pen

A research group in Denver has determined that shouting is the most efficient form of communication. “I FRANKLY DON'T SEE WHY ANYONE SPEAKS AT A 'NORMAL' VOLUME IN THIS MODERN AGE!” said research lead Dr. Dan Dischord. The study marks a major turning point in social psychology theory.

In the study, the subjects were divided into three groups. Group A was told to speak as softly, politely, and infrequently as possible. Group B was told to shout out everything that crossed their minds, and Group C was the control, with no special instructions. After taking a personality test and being recorded at their typical volume levels, all three groups were placed into one room, where loud music was playing. “THE ROOM SIMULATED THE TYPICAL DAILY LIFE OF AN AVERAGE AMERICAN,” Dischord explained, “FULL OF AUDITORY STIMULANTS AND DISTRACTIONS.”

The researchers noticed that at first, the groups stuck to their roles. Group A subjects stayed on the edges of the room, essentially silent. Group B people roamed the room actively, shouting the whole way. “WE REPEATED THIS TRIAL FIVE TIMES,” said Dischord, “AND, REMARKABLY, THE SAME THING HAPPENED EACH TIME.” After several minutes of follow-

ing their instructions, the Group B subjects would get into some kind of political or philosophical argument. The C group was quick to get engaged in the conversation, but Group A stayed along the walls or huddled in corners.

As time went on, groups B and C got louder, and some of the subjects in Group A started yelling at themselves. The researchers considered a trial to be finished when all the members of Group A were either shouting or had asked to quit. Surprisingly, when their voices were re-recorded a week after the study, each group still spoke at a higher volume than they had before they participated.

“AS WE COULD CLEARLY SEE FROM THESE RESULTS,” Dischord said, “THE NATURAL TENDENCY OF HUMANS IS TOWARD LOUDER SPEECH. WHEN WE TRY TO SUPPRESS THESE INSTINCTS, AS [Group A] DID, IT ONLY RESULTS IN DISCOMFORT, SHYNESS, AND ALIENATION. PEOPLE

WHO SPEAK QUIETLY AND POLITELY CAN NEVER EXPECT TO HAVE THEIR IDEAS OR NEEDS HEARD! INDEED, WE FOUND THAT MANY OF OUR TEST SUBJECTS WERE BRIGHT ENOUGH TO COME TO THIS CONCLUSION ON THEIR OWN!” The researchers determined that loud speech had another benefit: when others have been speaking loudly, it can be difficult for the listener to hear normal speech, which can lead to miscommunication. People often do not realize or admit that they are going deaf, so it can be hard to tell when to raise one's voice. This embarrassing situation can be avoided, however; by speaking loudly to everyone.

As Dischord put it, “SHOUTING IS NOT ONLY MUCH MORE EFFICIENT THAN

‘NORMAL’ SPEECH, IT'S EVEN BENEFICIAL! I EAGERLY AWAIT THE DAY WHEN EVERYONE IS SHOUTING AT EACH OTHER -- THINK OF THE FRIENDSHIP AND CAMARADERIE IT WOULD FOSTER!”



OREDIGGER

THE RUMOR MILL

Campus rumors debunked

Mike Stone
Researcher

Rumor: Brown Building Extension to be placed at old Hall of Justice location

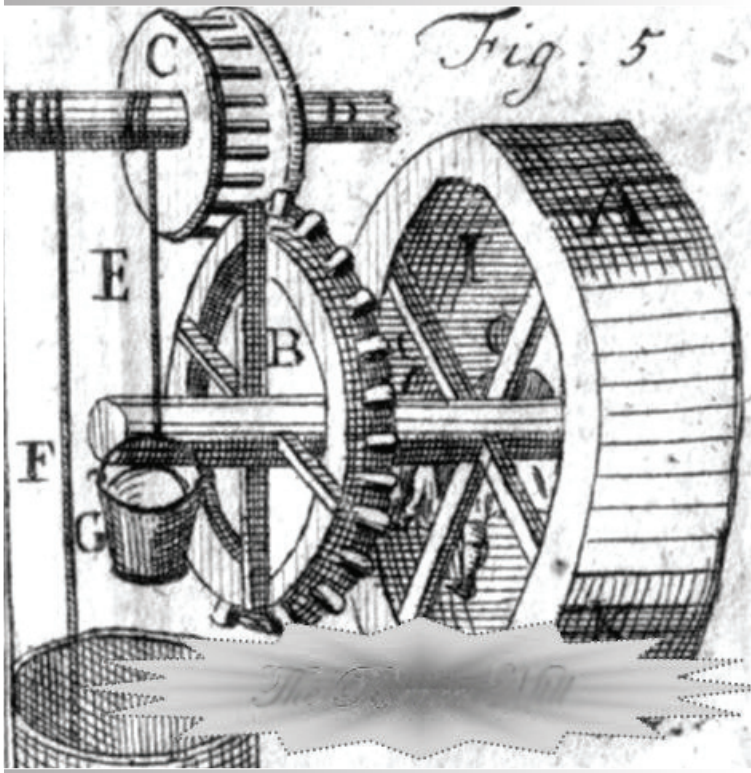
Status: Confirmed

Description: Underground tunneling and golf carts to make the gap between the old Brown building and the “addition” imperceptible.

Rumor: President Scoggins calls in sick last Tuesday because, he was up too late playing the Halo ODST preview.

Status: Busted

Description: He was playing the original Mario Brothers.



Finding neutral cake territory

Zachary Sorenson
He Cut the Cake

Carrot cake is the Switzerland of the cake world. I came to this conclusion when I was purchasing a cake for my roommate's birthday. I was unsure what his favorite cake was. I had to make a decision that not only would decide the outcome of the night, but of our friendship.

I saw the general choices of vanilla and chocolate and, I found myself reaching towards the “safe” vanilla cake. Then, I remembered all of the times I have had encounters with Chocoholics. To them, vanilla cake is the polar opposite of chocolate and, hence, is the enemy. If I was to buy this vanilla cake and my roommate was a Chocoholic, the results would be disastrous.

On the other hand, I could reach for the chocolate cake. This would not only present the same problem from the fans of vanilla cake (Vanilaholics?) but, would also provide complaints such as, “no chocolate for me. It is too filling and I've already had a double meat burrito today,” or,

“Oh, no chocolate for me, I'm planning on going to sleep tonight.”

It was while I was developing all of these completely reasonable theoretical situations in my head that something caught the corner of my eye. It was the always delicious, always tempting, always neutral carrot cake.

There has been no point in my entire cake-filled life in which someone has become upset when carrot cake was presented. This, of course, excludes the first third of my life when vegetables were considered “icky” and serving anything with a vegetable or fruit in the title was the same as telling everyone that the party is over.

This occurrence of “no complaints” can't be said for the previously mentioned chocolate or vanilla cakes, as they always encourage someone at the party to shout, “Really? Vanilla cake? You really should have gotten chocolate, so we could have some real fun,” or vice versa. So, until this irrational world can come together and agree that any cake is good cake, avoid violent birthday parties and take another look at that carrot cake.



The Geology Museum Open House showcased new and old collections of minerals and fossils.



New trilobite specimens in the Geology Museum.



ALL PHOTOS TIM WEILERT / OREDIGGER

CSM REC SPORTS
QUENCH YOUR NEED TO
GET OUT AND PLAY!

6v6 VOLLEYBALL

DEADLINE: THURS. 9/24 @5PM
CAPTAIN'S MEETING: FRI. 9/25
@3PM MCNEIL ROOM

WOMEN'S CLUB SOCCER

GAME: SAT. 9/26 @12PM
IM NORTH

[HTTP://RECSPORTS.MINES.EDU](http://recsports.mines.edu)



TENNIS SINGLES

DEADLINE: THURS. 9/24 @5PM

MEN'S CLUB SOCCER

GAME: SAT. 9/26 @2:30PM
GAME: SUN. 9/27 @12PM
GAME: SUN. 9/27 @2:30PM
IM NORTH

